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GB 540402
GB 293505
GB 281360
US 4088419A
US 4031405A
US 3895882A
(58) Field of search
F1T
(71) Applicant
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None

(54) **Wind motor**

(57) A wind motor has a semi-cylindrical screen B shielding rotor blades A during their movement against the wind, the screen being adjusted by tail vane C. The blades A may be constructed of stretched linen on a metal frame.

ERRATA

SPECIFICATION NO 2041457A

Page 2, line 35, Claims *after* (5 Mar 1979) *Start new paragraph insert*

1. Wind Engine, who can transfering wind energy into mechanical energy by: A) Rotatoring body, who consist from wings and axil, and rotate around the axil forsed by wind; B) Shield, who covering up half of rotatoring body, and who has form half of cilinder; and C) Control who automaticaly change position of shield in the way of wind.

Claim 2. Blowing Scrin, for smal engine, who protecting Wind Engine from unecspected storm, has same centre with axil of Wind Engine, and same conection with axil. Conection is constructed from plume block with 4 ore more hoocs. From these hoocs is streched wirw rop up to suporting post. Post is bury in soil inaf far from muving control.Streched wire rop is conected with top of post and with pile nearly the soil.

Claim 3. Blowing Scrin for big engine, who protecting big wind engine from unecspected storm, is constructed from profile or pipe around Wind Engine. On top of these profile, is profil or rail curve in circle. On these profile going weels of shield. Down side of profile can be bury in soil or conected with anothr profile curve in circle lake in top side. Every profile is conected with wirw rope on top and with pile nearly the soil.

THE PATENT OFFICE
22 January 1981

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GB 2041457 A

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(54) Wind motor

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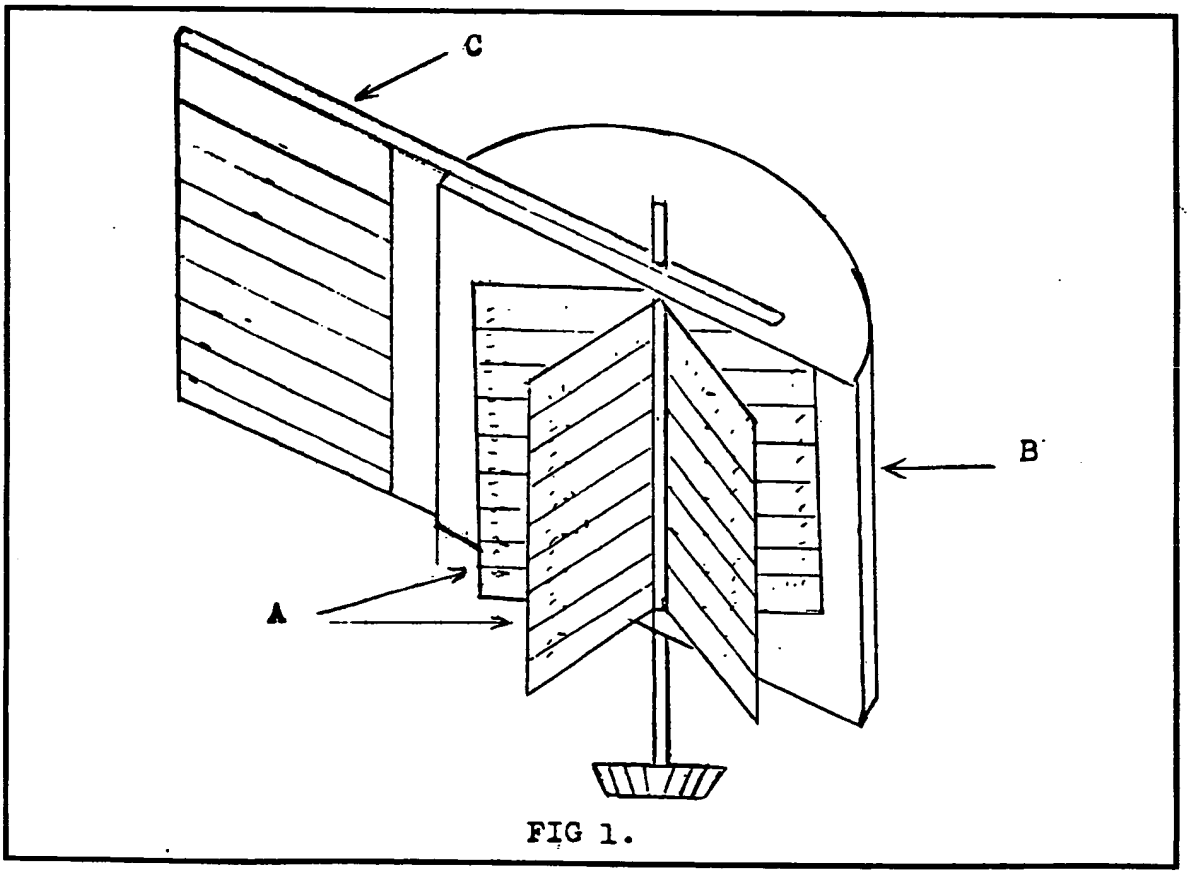


FIG 1.

GB 2 041 457 A

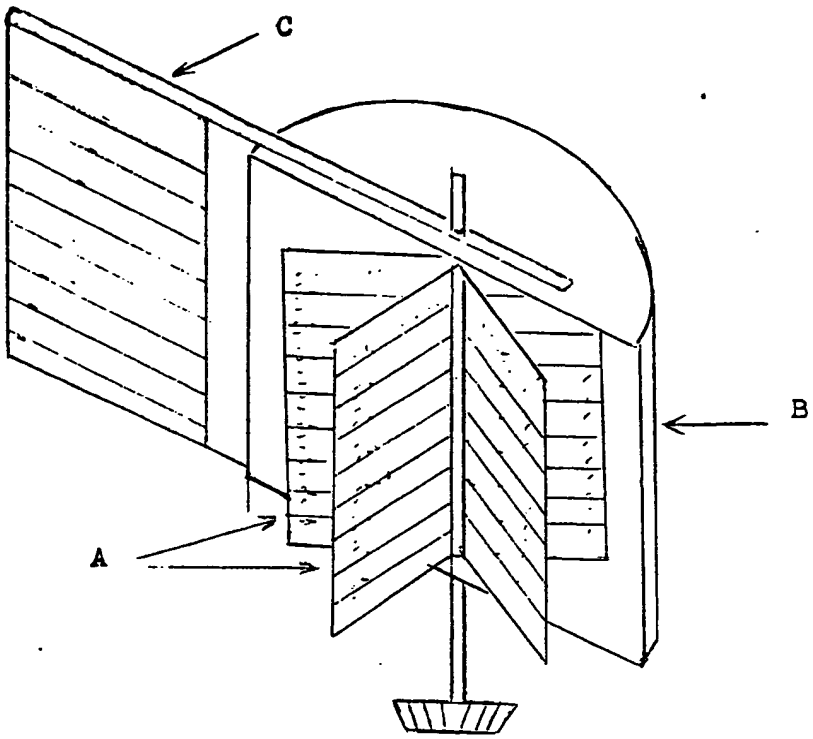


FIG 1.

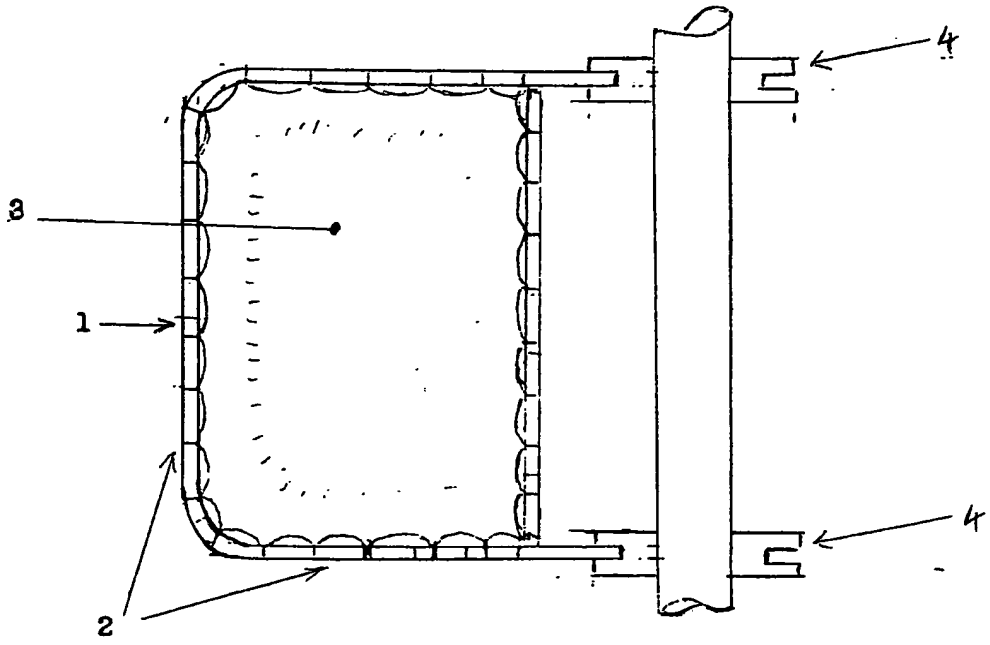


FIG 2.

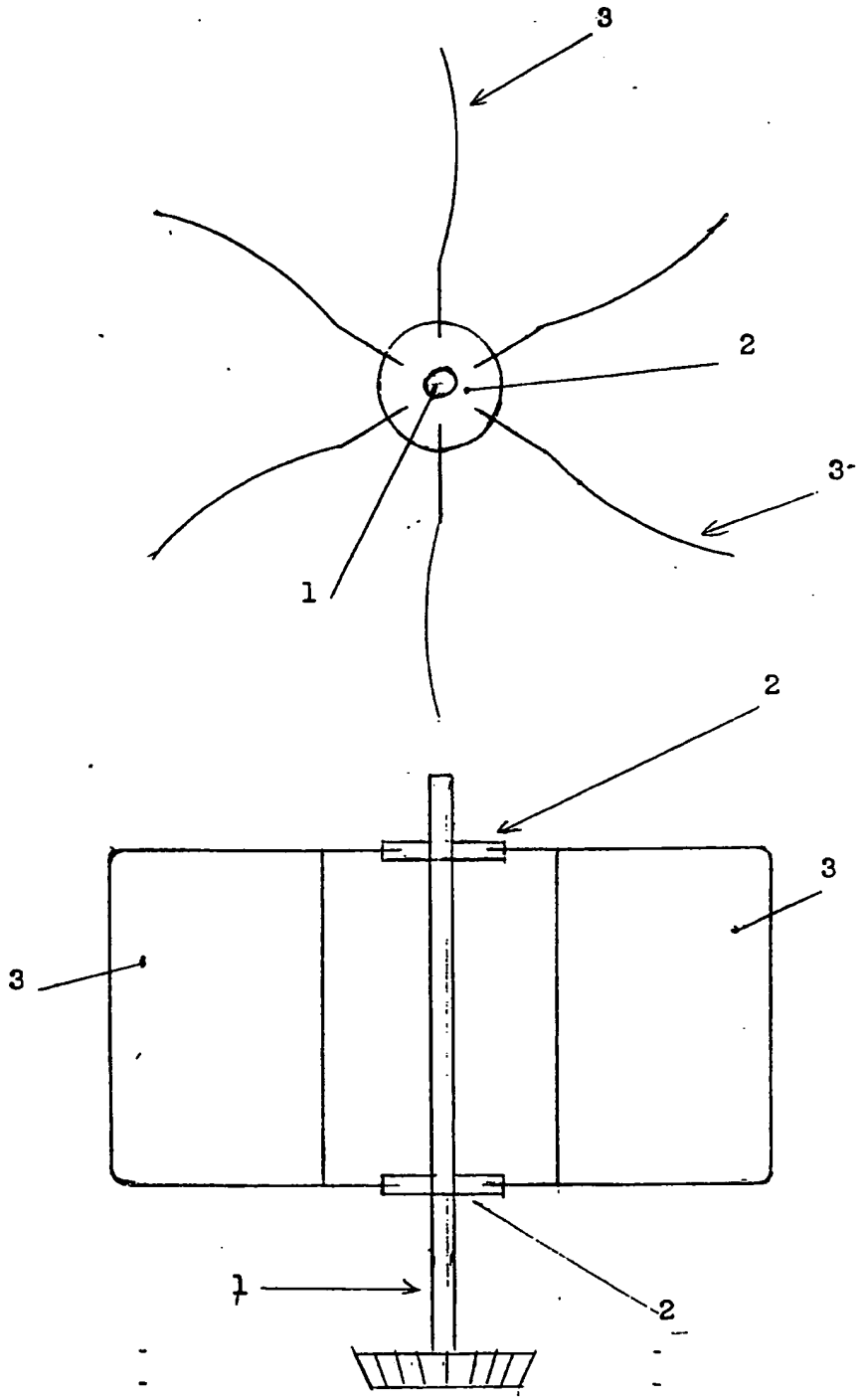


FIG 3

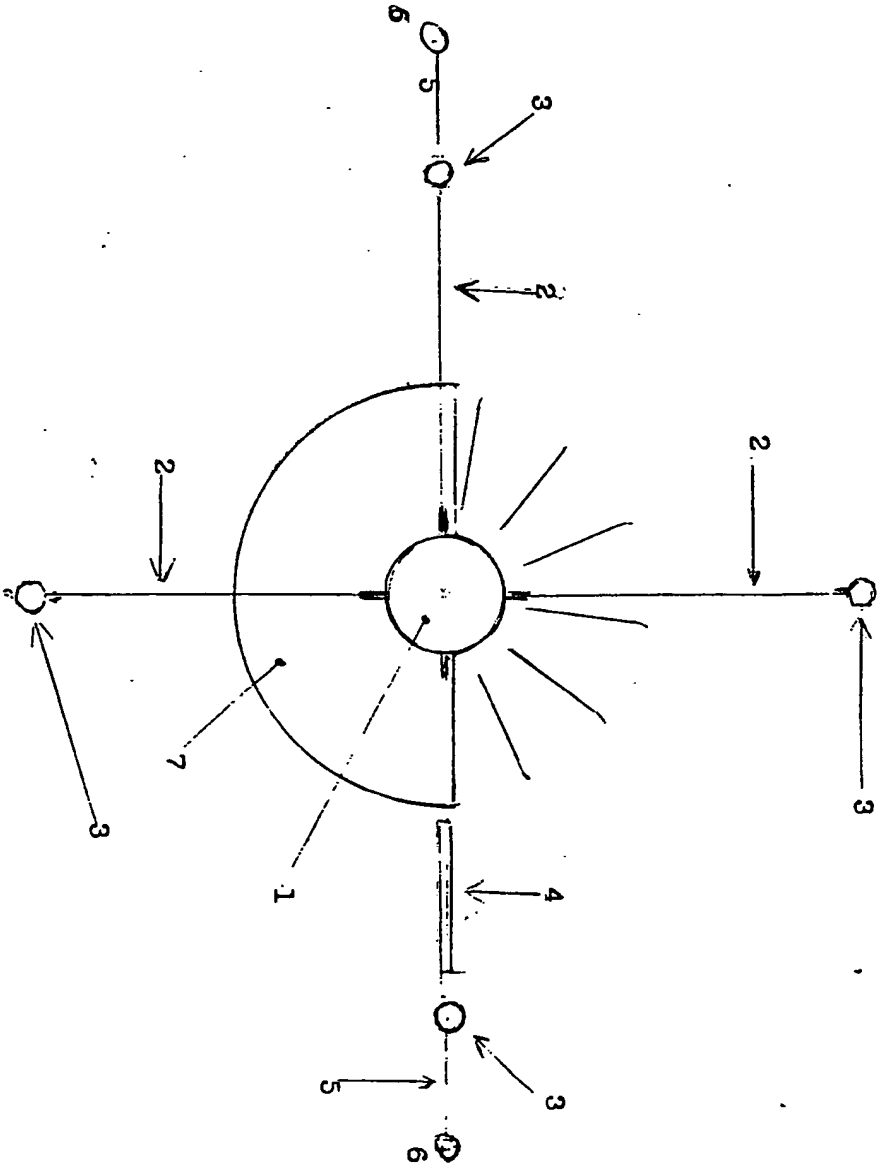


FIG 4

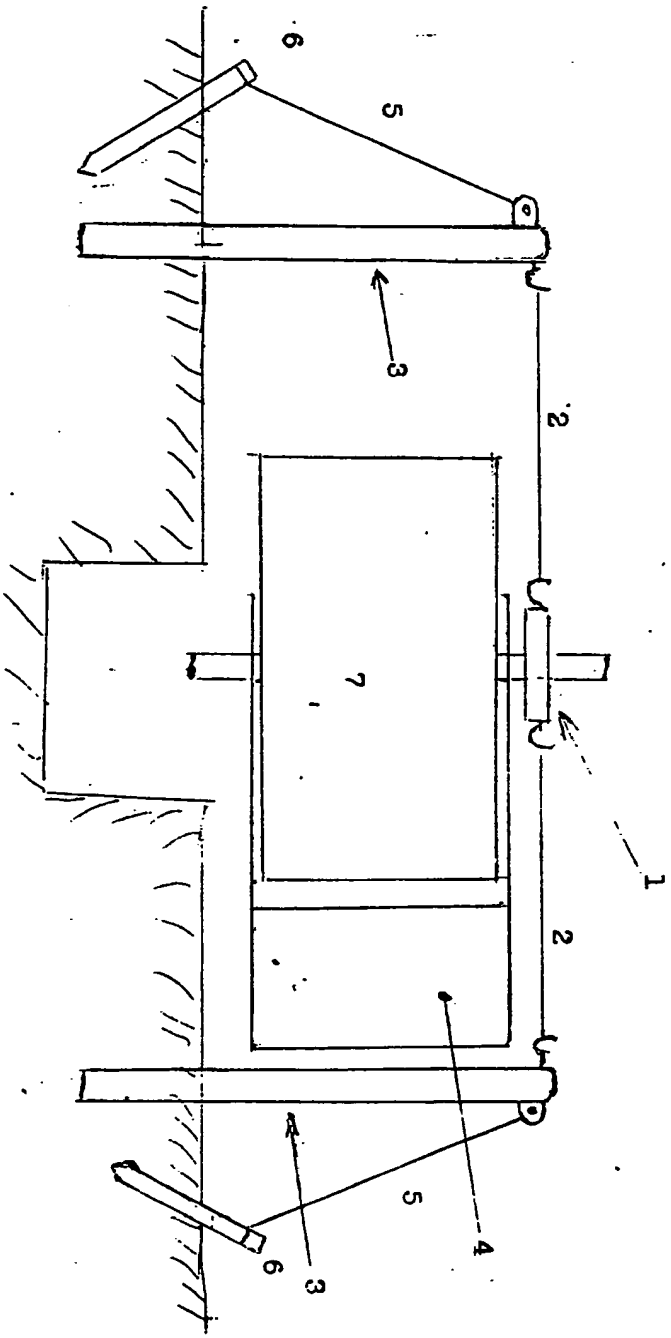
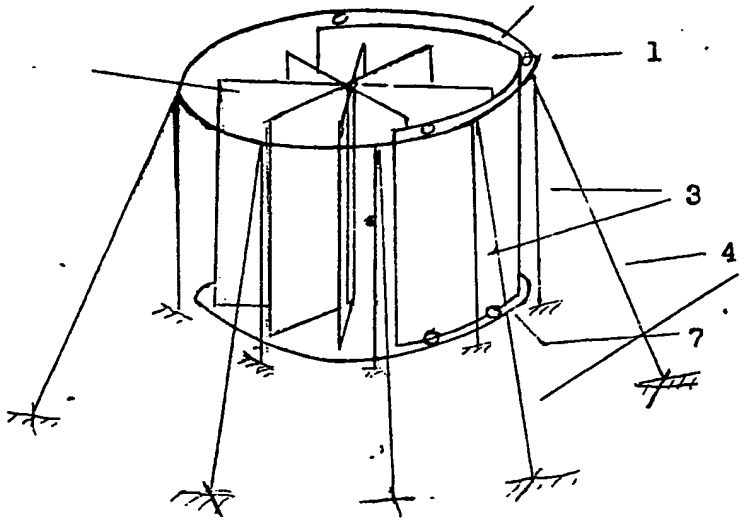


FIG 4a



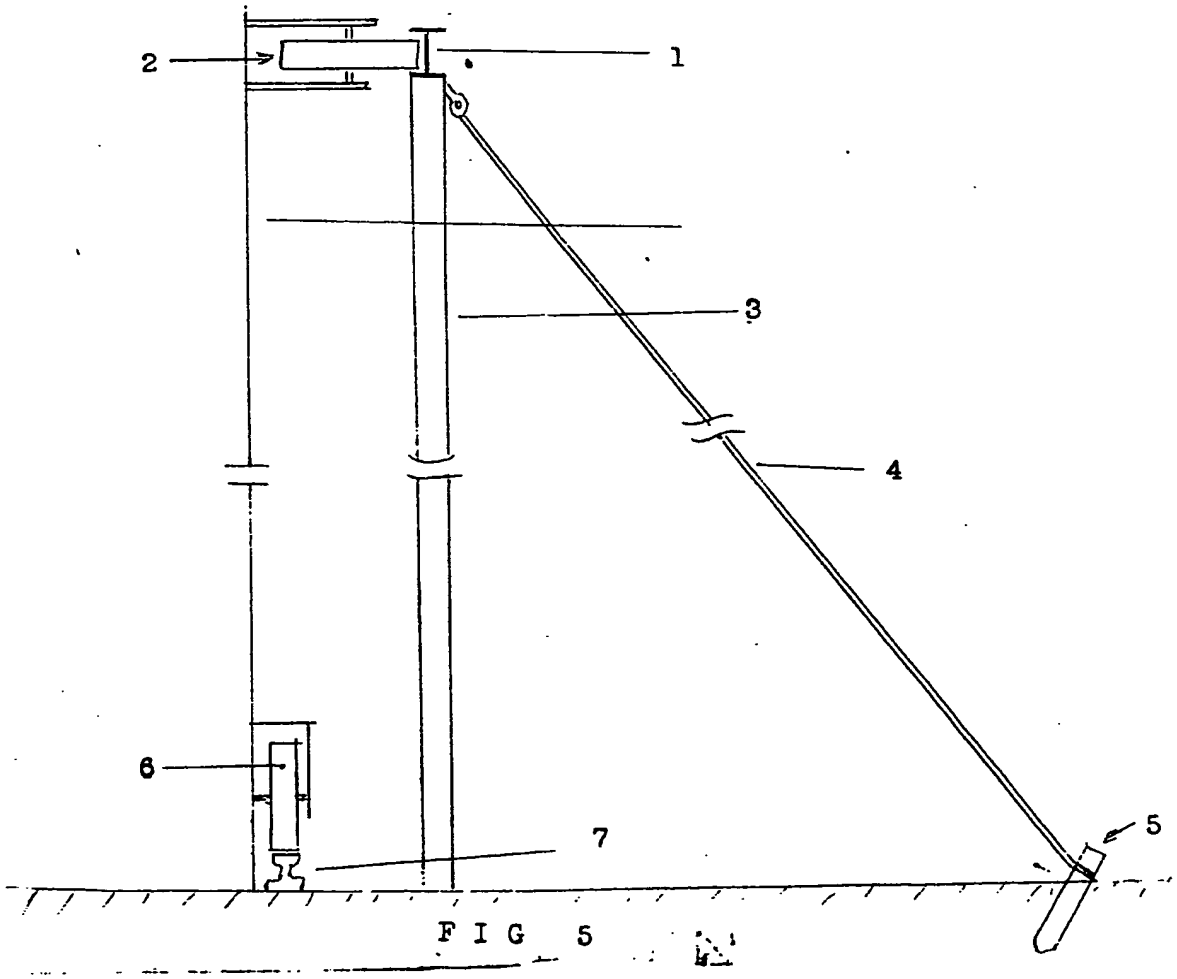


FIG 5

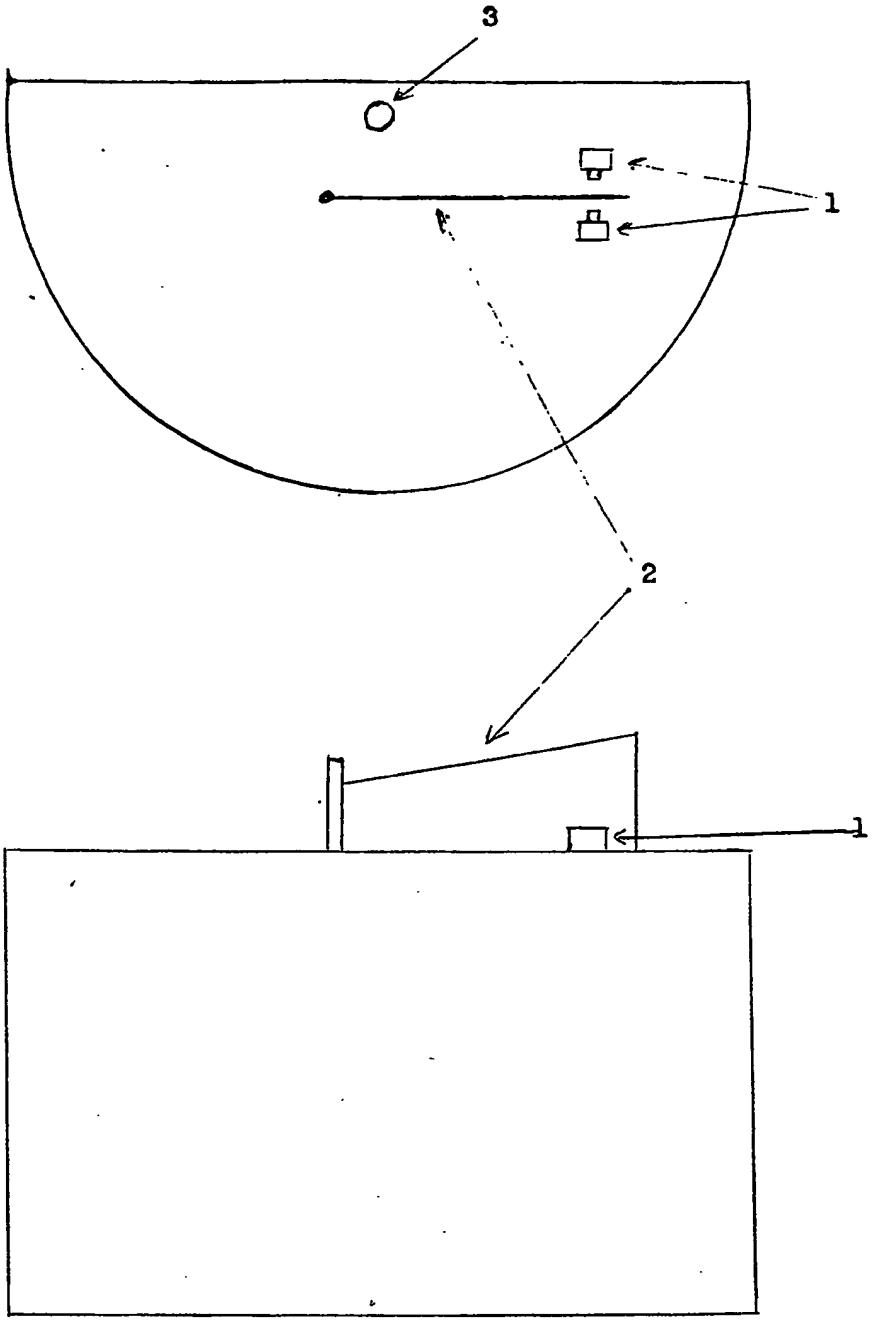


FIG 6

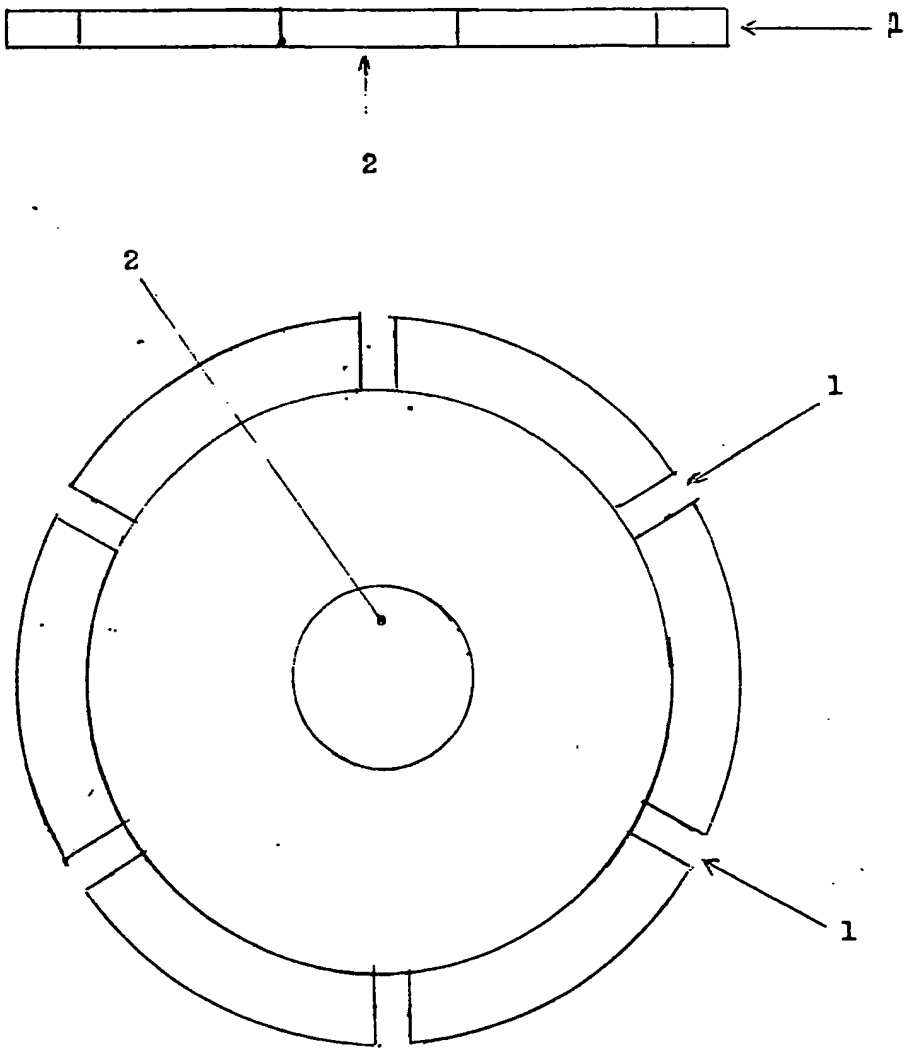


FIG 7

SPECIFICATION

Wind engine

Presented Wind Engine make posible to transfering wind energy into mechanical power. These power can be from one to two thousand horse power and more, depend from dimension of Wind Engine. Consist from: (A) Rotatoring body, (B) Shield, and (C) Control, Fig. 1.

Up to today we have two diferent tipe of Wind Mills or Wind Engine. Old Dach stile, who used in past for milling the grain, and from these century Wind Engine on tower, using usaly for pumping the water on farms. In present time was few attemte to get more power from wind, constructing wings and blades from full hevy iron, but for that reason (hevy ecipmant) all that Wind Mills or Wind Engines didn't fined place to be useful in todays needs.

In these invention main subject is Wings (Fig. 2) on rotatoring body. They are constructed from pipe in frame and in frame between pipe is streched linen. That is very important conteption. Using the linen meke posible to make very big Wind Engine who can producing much more mechanical power, than any existing Wind Mill or Wind Engine.

Another important part of Wind Engine is Shield. Who is half of cilinder, and who covering up half of rotatoring body. On these princip wind can acting only on half of rotatoring body, and can not acting on another half because is covered up by Shield.

Wind Engine consist from: Rotatoring Body, Shield, Control, and Blowing Scrin. Main part of rotatoring body and all Engine is axil, who is conected with wings by Conection Disc 4 Fig. 2. Wind acting on wings, who is constructed from pipe in frame and streched linen between frame, wings muving the axil and same time pulley. Wind can acting only on half of rotatoring body and can't acting on another half because is covered up by Shield. Control automaticaly change position of shield on the way of wind. If wind is to strong (storm) it is posible to shield covering up all rotatoring body, fixing the control in oposite direction. Main purpos of Bloving scrin is to protect Wind Engine from unespected storm.

In these way Wind Engine with very light wings and Shield who covering up half of rotatoring body, make posibility to be built very big engine who transfering very much wind energy into mechanical energy.

Main tings of Wind Engine is: A. Rotatoring bodi Fig. 1, who rotate around the axil, B. Shield Fig. 1, who covering up half of rotatoring body, C. Control Fig. 1, who automaticaly change position of shield, and Blowing scrin (Fig. 5 and 4) who protect rotatoring body and Shield from unexpected storm.

Rotatoring body (Fig. 3) consist from wings 3 and axil 1. Wings are constructed from pipe (1 Fig. 2) in frame (2 Fig. 2). Frame can be in form: square, rectangle, or triangle, or combination of square and triangle or rectangle and triangle. Between frame is streched linen (3 Fig. 2). Linen is main thing of vings and all engine, because wind acting on linen who is in a frame, and frame muving the axil. On one axil can be fixed from 3 to 50 wings and more, depend from who much big and width is Wind Engine. All wings are part of axil, and they are conected with axil (1, Fig. 3) by conection disc (Fig. 7). Conection disc is a flat round iron with hole in centre for axil (2, Fig. 7) and with groove outside (1, Fig. 7). In these groove is fixed pipe from frame of wings by welding. Axil is solid round iron who caring wings, bearings and puley.

Shield is half of cilinder, and his construction depend from dimension. On Wind Engine up to two m. width and up to 1 m. high, Shield can be fixed on axil like on Fig. 1. Constructed from galvanised corugate or flat iron and has same centre, conection and point of support with axil. In Engine bigest than 2 m. Shield must constructed from corugate iron suported by profiles or pipes. On down side Shield must have weels (6, Fig. 5), who muving the Shield on rail (7, Fig. 5) around rotatoring body. One weel or more (depend from dimension of find engine) is fixed with elctromotor who muving the Shield on rail, comanded by control. In bigest engine than 10 m. Shield must have on uper side suporting veels (2, Fig. 5) and roling on uper rail, (1, Fig. 5), these rail is on top of bloving scrin (Fig. 5).

Control automaticaly change position in direction of wind, same time muving the shield. In these way Shield regulate automaticaly opening of rotatoring body in direction of wind. In engine up to 2 m. width and 1 m. high, control have same axil like rotatoring body, and the shield (C, Fig. 1). When wind engine exceed 2 m. in diameter Wind Engine must have smal control with electrical device (1, Fig. 6) On top of shield is smal control (2, Fig. 6). Wind can pushing wings of control left and right, on the both side of control left and right, is switch (1, Fig. 6) who start electromotor, and muving the Shield antil control presing buton of switch. In these way shield regulate automaticaly opening of rotatoring body on the way of wind. Control not necesery to have same axil with shield and rotatoring body. (3, Fig. 6).

Blowing scrin for smal engine up to 2 m. in diameter, Fig. 4, has same centre with axil, Fig. 4a, and same conection with axil. Conection is constructed from plume block with minimum 4 hooks, who coming on axil (1 Fig. 4 and 4a) From these hooks is streched wire rop (2 Fig. 4 and 4a) up to suporting post (3 Fig. 4 and 4a). Post is bury in soil inaf far from muving control 4 Fig. 4 and 4a.

Streched wire rop is conected with top of post and with pile (6 Fig. 4 and 4a) nearly the soil.

Blowing scrin for big engine is constructed from profile or pipe, around the shield, Fig. 5. On the top of profile (3 Fig. 5) is profil curve in circle (1 Fig. 5). On these profile going weel from shield (2 Fig. 5). Down side of profile (3 Fig. 5) can be bury in soil or conected with another profil who is curve in a circle, like on top side. every profile (3 Fig. 5) is conected with wirw rop (4 Fig. 5) on top, and with pile (5 Fig. 5) nearly the soil.

Described Wind Engine can transfering much more wind energy into mechanical power than any existing Wind Mill or Wind Engine. It is posible to constructing Wind Engine from 1 m. high up to 50 m. and more. Wind Engine can using for many diferent things: Electricity, Pumps, boats, yachts, even for ships, and to muving another mashines. One Wind Engine who is 50 m. high and 100 m. width can produce elctricity from 0,5 to 2 megawatt and more (depend how much wind is strong). These electricity can using to producing Hidrogen (electrolysis the water) and that hidrogen can using for producing electricity in the time where is no wind, or using hidrogen like fuel in cars, or using electricity to producing orher chemicals, or in metalurgy.

this is only example how many diferent things can get from Wind Engine who producing very chip electricity.

CLAIMS (5 Mar 1979)

4. Shield for smal engine, is a part of Wind Engine, who has form half of cilinder and who covering up half of rotatoring body. Constructed from corugate or flat iron without suporting profile or pipe. This Shield has same centre, conection, and point of suport with axil.

5. Shield for big engine, is a part of wind Engine, who has form half of cilinder, and who covering up half of rotatoring body. Constructed from corugate iron or other material with suport from profile or pipe. On down side has weels who roling around the rotatoring body, cary on the Shield. On uper side can have suporting weels to.

6. Rotatoring Body, is a part of Wind Engine who rotate around the axil forsed by wind. Consist from wings and axil. On one rotatoring body can be 3 to 50 and more wings.

7. Wings, are part of Wind Engine. Constructed from tube in frame, form square, rectangle or triangle. In frame is streched linen. On linen acting the wind and muving all engine.

8. Disc Conection are part of Wind Engine, who is flat round iron with hole in centre for axil and with groove outside for frame of wings. His dimension depend from dimension of Wind Engine.

CLAIMS (3 Mar 1980)

1. A wind engine comprising, in combination; a sail assembly including a plurality of planar, skeletal fabric-covered sails rotatable about a vertical axis;

a semi-cylindrical shroud surrounding a portion of said sail assembly and means mounting said shroud, with respect to said sail assembly, whereby said shroud is enabled to be rotated so as to shield different portions of said sail assembly;

a directional vane parallel on said shroud and movable by the wind to position said shroud with respect to said sail assembly; and

guying means to support said wind engine so as to ensure that said axis is maintained in its vertical disposition.

2. The wind engine as claimed in claim 1, wherein said directional vane is a planar, skeletal fabric-covered vane parallel outwardly from a side of said semi-cylindrical shroud in a vertical plane.

3. The wind engine as claimed in claim 1 or claim 2, wherein said vertical axis is that of a shaft to which said sails are affixed, where shaft is also said means for rotationally mounting said shroud.

4. The wind engine as claimed in claim 1, wherein there is provided an annular storm-protection frame which surrounds said sail assembly and said semi-cylindrical shroud from at least ground level to substantially half the height of said shroud; said frame being topped by a rail along which a plurality of wheels carried by said shroud is adapted to travel upon rotation of said shroud; said shroud, at the lower part thereof, also being provided with a further plurality of wheels adapted for travel along a lower, annular rail encircling said sail assembly and said shroud; said wheels and rails constituting said means for rotationally mounting said shroud.

5. The wind engine as claimed in claim 4, wherein said directional vane is mounted atop said shroud and is movable by the wind to make contact with switch means which actuate an electric motor to thereby drive said shroud rotationally so as to position it with respect to said sail assembly.

6. A wind engine substantially as hereinbefore described with reference to the accompanying drawings.

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